

CONTROL SYSTEM AND METHOD FOR AN OPTICAL AMPLIFIER

ABSTRACT OF THE DISCLOSURE

A method and system for controlling the gain of the amplification of an optical signal is provided that includes both electrical feedforward and feedback. In a
5 feedforward portion of an optical amplifier, the method includes receiving an optical signal and measuring an input power. Based on the measured input power and a desired gain, a feedforward pump power is determined. The pump power is adjusted based on the determined pump
10 power. In a feedback portion of an optical amplifier, an output power is measured and gain is determined based on the output power and the measured input power. The measured gain is compared to a desired gain and the pump power is adjusted based on that comparison.